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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,373	04/01/2004	Aron Schatten		8253

7590 06/18/2009  
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EXAMINER
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COBURN, CORBETT B

ART UNIT	PAPER NUMBER
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3714

MAIL DATE	DELIVERY MODE
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06/18/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,373	<b>Applicant(s)</b> SCHATTEN ET AL.	
	<b>Examiner</b> Corbett B. Coburn	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7-9, 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-12 & 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. Claims 1-6, 10-12 & 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comaniciu et al. (US Patent Number 6,590,999) in view of Oswald (US Patent Number 3,678,189).

**Claims 1, 10:** Comaniciu teaches a system for monitoring and displaying positions of competing moving objects (i.e., members of competing sports teams). A unique identifier placed onto each competing moving object – every player on a football team has a number that uniquely identifies the player. (Fig 2) The identifier is configured to uniquely identify a position of said each competing moving object at any moment of time. Comaniciu teaches an identifier detection means configured to detect positions of said unique identifier. In Fig 2, Comaniciu shows that the system tracks the position of the selected player's identification number -- the area in the ellipse. There is a processor and a display. The detection means conveys detected positions of said unique identifier to said processor and the processor determines relative positions of the competing moving objects and wherein the processor transmits said determined relative positions to the display for displaying to observers. Comaniciu does not detect the coordinates of the moving object or visual pattern. Comaniciu's use of "coordinates" is strictly a mathematical construct & has nothing to do with detecting the position of objects on the field of play.

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**Regarding the newly-added limitations:** Comaniciu teaches the determination of the relative positions of objects, but does not teach using that relative position data to determine a winner. (By determining the position of each object in the frame, Comaniciu also determines their relative position.) Oswald teaches that it is well known in the racing arts to use the camera-detected relative positions of objects (i.e., horses & jockeys) to determine a winner of a horse race. (Col 1, 16-25, Col3, 40-55) Oswald teaches that using video systems to determine the winner based on relative position of the participants allows the winner to be more accurately determined than using human sight. It would have been obvious to one of ordinary skill at the time of the invention to have modified Comaniciu in view of Oswald to use the relative position of objects to determine the winner in order to provide a more accurate method of determining the winner of a race.

**Claim 2:** The unique identifier is a visual pattern (i.e., a number) and the identifier detection means is a camera.

**Claim 3:** The visual pattern comprises an identifiable color. Each team wears a different color. Comaniciu discloses that the system may identify different colors and textures.

(Abstract)

**Claims 4, 11:** Clearly to be of any use in tracking sports players, the camera must detect the visual pattern of each competing moving object and its position relative to said visual patterns of other competing moving objects.

**Claim 5:** The camera conveys the detected visual pattern and the relative position to said processor. And the processor identifies each competing moving object using the detected visual pattern and determines relative positions of the competing moving objects.

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**Claim 6, 12:** The processor runs visual pattern recognition software.

**Claims 15-18:** Comaniciu clearly teaches displaying the position of the tracked objects on the screen. (Fig 2) Scaling images (i.e., multiplying the image data by a factor based on the size & configuration of the screen) displayed on a screen is obviously required if the image is to fit the screen & be displayed in an intelligible manner. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Comaniciu & Oswald to scale the images in order that they might fit the screen & be displayed in an intelligible manner.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-6 & 10-12 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbett B. Coburn whose telephone number is (571) 272-4447. The examiner can normally be reached on 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Corbett B. Coburn/  
Primary Examiner  
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